

Q State your name and business address.

A Timothy M. Goodman
Department of Natural Resources
Aquatic Resources Division
P.O. Box 47027
Olympia, WA 98504-7027

Q Where are you employed and what is your job title?

A Aquatic Resources Division
Department of Natural Resources
Olympia, Washington
Sediment Site Manager/Environmental Engineer

Q What is your educational background?

A B.S. Civil Engineering, University of Seattle, 1987
M.S. Civil Engineering, University of Texas, 1989

Q Are you a registered professional engineer in the State of Washington?

A Yes, as of 1994

Q Summarize your professional experience.

A Seattle Department of Transportation, Intern 1986

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 1 of 6

University of Texas, Research Assistant	1987-1989
Remediation Technologies, Inc., Environmental Engineer	1989-1994
Department of Natural Resources, Environmental Engineer	1994-present

I have been project manager, design engineer, and field engineer responsible for all phases of upland and aquatic environmental cleanups. This has included remedial investigation, feasibility studies, and remedial design at State and federal superfund sites. I have provided environmental engineering services to large and small public and private entities such as ports, refineries, and railroads. I have worked with a wide variety of contaminants, but my primary focus has been on the fate, transport, and treatment of hydrocarbons.

For the past four years I have represented the State of Washington's real estate interests in contaminated sediment issues. My job is to provide oversight of state owned aquatic land cleanups and guidance on issues which relate to sediment quality. This has provided me with the opportunity to become familiar with most of the large aquatic cleanup projects in the Puget Sound area.

Q What is the subject of your testimony?

A Impacts during construction and operation on submerged sediment.

Q Have you read the application?

A Yes, I have read those sections of Olympic Pipeline Company's Cross Cascade pipeline project Application Number 96-1 for Site Certification, dated May 11, 1998 which

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 2 of 6

pertain to impacts to sediment.

Q What is an acceptable level of risk of impact to submerged sediment?

A In my position I do not determine what is an acceptable level of risk. I identify and characterize risks with which I am familiar and convey this information to executive management.

Q Could operation or construction of the proposed pipeline impact submerged sediment?

A A release of hydrocarbons during operation of the proposed pipeline may result in elevated concentrations of hydrocarbons in submerged sediment which could have adverse effects on biological resources. Effects depend on the type of hydrocarbon released and a complex list of environmental parameters such as sediment grain size distribution, current, temperature, and conductivity of contaminant pathways. Fluid density and dynamic viscosity are two properties that can greatly affect the mobility of liquid-phase hydrocarbons. These properties depend, in part, on the level of fractional distillation of the hydrocarbon. Lighter fractioned products, such as gasoline, have a lower potential to accumulate in sediments while heavier products, such as heavy fuel oils, are relatively viscous and insoluble in groundwater and are relatively immobile in the subsurface. Diesel fuel, kerosene, and jet fuels fall in the middle distillate category between gasolines and heavier fuel oils. Impact may also be modified by type and quantity of additives. All pipe water crossing configurations with which I am familiar would present a risk to sediments.

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 3 of 6

In my experience at construction work sites I have witnessed spills of hydraulic fluids, fuel and lubricating oils which could have been prevented through greater care. Greater care can be achieved through contingency planning, worker education, careful oversight by knowledgeable personnel, quick response, and preparedness. Erosion control failures could adversely effect submerged sediment by allowing job site surface soils, possibly contaminated, to be transported into streams and rivers. This could change the character of the submerged sediments to the extent that biological resources are impacted.

Q What is the basis for your response to the above question?

A It is based on both an understanding of the fate and transport mechanisms of hydrocarbons and past experience with investigation and cleanup of hydrocarbon releases in freshwater streams and lakes, marine water, soil, and groundwater. As a check of the reasonableness of the assumption that a release could occur, a search of Department of Ecology's records of past Olympic Pipeline releases was performed by DNR staff. This search identified the following spill locations from the existing north/south Olympic Pipeline:

- 👍 Des Moines Creek near SeaTac
- 👍 Cedar River (not proven to have occurred from the pipeline)
- 👍 Spencer Creek near Kalama
- 👍 Ditch adjacent to Ebey Slough in Snohomish county, and
- 👍 Salmon Creek near Castle Rock

The impacts of these specific spills was not researched.

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 4 of 6

Q What laws require cleanup of hydrocarbon contamination of submerged sediment?

A The Washington State Sediment Management Standards (WAC 173-204) give the Department of Ecology authority to require cleanup of marine and freshwater sediment that adversely effects biological resources. Specific cleanup criteria have been identified only for marine sediments located within Puget Sound. However, WAC 173-204-320(1)(c) and WAC 173-204-340 give the Department of Ecology cleanup authority for non-Puget Sound marine sediments and freshwater sediments, respectively, on a case-by-case basis. Proprietary laws which are relevant to environmental risks are discussed in the testimony of David Bortz.

Q Should cleanup liability be a relevant risk factor to the State as a landowner?

A Yes. The financial burden of this liability could impact the people of Washington State.

Q How are landowners held liable for cleanup of spills caused by other entities?

A The Sediment Management Standards (WAC 173-204) derive their authority from, among other laws, the Model Toxics Control Act (MTCA) (Chapter 70.105D RCW). MTCA adopts strict, joint and several, retroactive liability for releases of hazardous substances. Four broad categories of persons are liable for releases: current owners and operators; certain past owners and operators; and certain transporters of hazardous substances. Based on its

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 5 of 6

ownership of submerged sediments and proprietary management role, the State might be held liable for cleanup as it has been at other cleanup sites. In the past, the land management agency has been held liable on behalf of the State.

I certify and declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to the best of my knowledge and belief.

SIGNED AT _____, Washington on this _____ day of February, 1999.

Timothy M. Goodman, P.E.

Prefiled Testimony of Timothy M. Goodman

Exhibit TG-T

Page 6 of 6